United Nations ECE/TRADE/C/WP.7/GE.1/2015/3

Economic and Social Council

Distr.: General
6 February 2015

Original: English

Economic Commission for Europe

Committee on Trade

Working Party on Agricultural Quality Standards

Specialized Section on Standardization of Fresh Fruit and Vegetables

Sixty-third session
Geneva, 21 -24 April 2015
Item 4 of the provisional agenda

Draft explanatory brochure and Standard for Persimmons

The following document contains the interpretative text and the text of the draft standard. It also includes proposals for amendments developed by the Working Group. All proposed changes are highlighted.

GE.15-01545 (E)
1501545

Please recycle

Contents

I. Definition of produce

II. Provisions concerning quality

III. Provisions concerning sizing

IV. Provisions concerning tolerances

V. Provisions concerning presentation

VI. Provisions concerning marking

Annex 1: Summary of Classification

Annex **2:** UNECE Standard FFV-63 concerning the marketing and commercial quality control of persimmons

Draft explanatory brochure for Persimmons

I. Definition of produce

This standard applies to persimmons of varieties (cultivars) grown from *Diospyros kaki* L. f. to be supplied fresh to the consumer, persimmons for industrial processing being excluded.

Interpretation: Persimmon varieties vary by:

- fruit size - from small to medium-sized or large fruits
- fruit shape - longitudinal section: round to oblate or flattened; cross section: round to four-sided and more or less furrowed
- skin colour - light yellow-orange to orange-red
- flesh colour - yellow to red.

Persimmon varieties are generally classified into four major groups:

(i) Pollination Constant Non-Astringent (PCNA): varieties producing non-astringent fruits at harvest, regardless of the presence of seeds. The flesh is light-coloured with, on rare occasions, very small brown spots. Hard-ripe fruits are edible at harvest irrespective of the presence of the seed set. Examples of varieties: Fuyu (Fuyugaki), Jiro, Hana Fuyu, O'Gosho.

(ii) Pollination Variant Non-Astringent (PVNA): varieties producing non-astringent fruits when fertilized. Depending on the variety within this group, the number of seeds (1 to 8) can be an indication of fruit astringency at harvest; normally the presence of a few seeds would guarantee the edibility of the fruit. The flesh is brown and often rich in dark spots. Fruits are not edible at harvest, if parthenocarpic; they become edible after natural softening or artificial removal of astringency. Examples of varieties: Kaki Tipo (Loto di Romagna), Nishimura Wase, Shogatsu, Zenji Maru.

(iii) Pollination Constant Astringent (PCA): varieties producing astringent fruits at harvest, regardless of the presence of seeds. The flesh is light-coloured. Fruits become edible after natural softening or artificial removal of astringency. Examples of varieties: Hachiya, Atago, Yokono, Flat Seedless, Rojo Brillante.

(iv) Pollination Variant Astringent (PVA): varieties producing astringent fruits, regardless of fertilization. Fertilization removes the astringency only around the seeds, where there are brown spots. The number of seeds is irrelevant for fruit astringency at harvest; fruits with 8 seeds are still astringent. Hiratanenashi and its mutants belong to this group, although normally they do not bring seeds even when pollinated. Depending on the variety, the flesh is light-orange or dark-brown. Examples of varieties: Triumph, Hyakume, Chocolate, Maru, Tonewase, Fude.

Examples of commercially grown varieties are shown in Photos 1-5.

Photo 1. Definition of produce – variety Fuyu

Photo 2. Definition of produce – variety Kaki Tipo

Photo 3. Definition of produce – variety Rojo Brillante

Photo 4. Definition of produce – variety Triumph

Photo 5. Definition of produce – variety Fude

II. Provisions concerning quality

The purpose of the standard is to define the quality requirements for persimmons at the export-control stage after preparation and packaging.

However, if applied at stages following export, products may show in relation to the requirements of the standard:

- A slight lack of freshness and turgidity
- For products graded in classes other than the "Extra" Class, a slight deterioration due to their development and their tendency to perish.

The holder/seller of products may not display such products or offer them for sale, or deliver or market them in any manner other than in conformity with this standard. The holder/seller shall be responsible for observing such conformity.

Advice: At the packing stage, special attention should be paid to ensure that the minimum requirements have been met. Produce with any progressive defects will deteriorate during transportation and distribution.

A. Minimum requirements

In all classes, subject to the special provisions for each class and the tolerances allowed, the persimmons must be:

- intact, with the calyx attached, **which may be with or without peduncle, dry and brown**

Interpretation: Persimmons must not have any damage or injury affecting the integrity of the produce. Persimmons with mechanical damage, unhealed injuries, **punctures** or cracks exposing the interior of the produce are not allowed.

At marketing stages after harvest, the calyx may be dry and of yellowish to brownish colour.

Advice: Removing the peduncle helps avoid any damage to neighbouring fruits.

Examples related to the minimum requirement "intact" are shown in Photos 6-10.

Photo 6. Minimum requirement: "intact, with calyx attached". Fruit with calyx attached, with and without peduncle – allowed

Photo 7. Minimum requirement: "intact, with calyx attached". Split under calyx – not allowed

Photo 8. Minimum requirement: "intact". Mechanical damage – not allowed

Photo 9. Minimum requirement: "intact". Mechanical damage – not allowed

Photo 10. Minimum requirement: „intact". Split fruit — not allowed

- sound; produce affected by rotting or deterioration, such as to make it unfit for consumption, is excluded

Interpretation: Persimmons must be free from disease (caused by fungi, bacteria or viruses), physiological disorders or serious deterioration, which appreciably affect their appearance,

edibility or keeping quality. Persimmons affected by rotting, even if the signs are very slight but liable to make the fruit unfit for consumption upon arrival at destination, should be excluded.

The persimmons with the following defects are therefore excluded:

- rotting
- mould
- serious sun-scorch **affecting the flesh**
- serious bruising
- serious internal discolouration

Note: This is not considered as a defect for the varieties for which brown flesh is characteristic.

- freezing damage.

Note: Chilling injury (damage caused by low temperature) appears as glassiness developing directly under the skin and progressing towards the core ***once the fruit has been moved to ambient temperature.*** *The peel is of dull brownish colour.*

Examples related to the minimum requirement "sound" are shown in Photos 11-19.

Photo 11. Minimum requirement: "sound". Early signs of rotting – not allowed

Photo 12. Minimum requirement: "sound". Mould, secondary infection – not allowed

Photo 13: Minimum requirement: "sound". Sooty mould, early stage – not allowed

Photo 14. Minimum requirement: "sound". Physiological damage – not allowed

Photo 15. Minimum requirement: "sound". Hail damage – not allowed

Photo 16. Minimum requirement: "sound". Serious sun-scorch affecting the flesh – not allowed

Photo 17. Minimum requirement: "sound". Serious bruising – not allowed

Photo 18. Minimum requirement: "sound". Serious internal discolouration exceeding ½ of the cross section – not allowed

Photo 19. Minimum requirement: "sound". Freezing injury – not allowed

- clean, practically free of any visible foreign matter

Interpretation: The presence of visible foreign matter can detract from commercial presentation and acceptance of persimmons. Therefore, the acceptable limit for "practically free" would be – in all classes – very slight traces of dust. **Soiling or any traces of inorganic deposits are not allowed. Any deposits of a blue, green or other unusual colour indicating the presence of traces of pesticide residues are not allowed.**

Examples related to the minimum requirement "clean" are shown in Photos 20-24.

Photo 20. Minimum requirement: "clean". The bloom is a characteristic of the fruit and is not a defect

Photo 21. Minimum requirement: "clean". Very slight traces of dust on calyx – limit allowed in all classes

Photo 22. Minimum requirement: "clean". Very slight traces of foreign matter on fruit – limit allowed in all classes

Photo 23. Minimum requirement: "clean". Soiled fruit – not allowed

Photo 24. Minimum requirement: "clean". Soiled fruit – not allowed

- practically free from pests

Interpretation: The presence of pests can detract from the commercial presentation and acceptance of the persimmons. Therefore, the acceptable limit for "practically free" would be – in all classes – the odd insect, mite or other pests in the package or sample; any colonies **are not allowed**.

Examples related to the minimum requirement "practically free from pests" are shown in Photos 25-26.

Photo 25. Minimum requirement: "practically free from pests". One pest (mealy bug) under the calyx – limit allowed in all classes

Photo 26. Minimum requirement: "practically free from pests". Colony of pests (mealy bugs) – not allowed.

- free from damage caused by pests affecting the flesh

Interpretation: Pest damage affecting the flesh makes the produce unfit for consumption and is not allowed. Any pest damage affecting the skin only is assessed within the limits allowed for skin defects in the respective classes.

Examples related to the minimum requirement „free from damage caused by pests affecting the flesh" are shown in Photos 27-29.

Photo 27. Minimum requirement: "free from damage caused by pests affecting the flesh". Oviposition by a fruit fly (induces ripening) – not allowed

Photo 28. Minimum requirement: "free from damage caused by pests affecting the flesh". Hole left by a fruit fly larvae leaving the fruit – not allowed

Photo 29. Minimum requirement: "free from damage caused by pests affecting the flesh". Feeding damage caused by larvae – not allowed

- free of abnormal external moisture

Interpretation: This provision applies to excessive moisture, for example, free water lying inside the package, but does not include condensation on produce following release from cool storage or refrigerated vehicle.

- free of any foreign smell and/or taste.

Interpretation: This provision applies to persimmons stored or transported under poor conditions, which have consequently resulted in their absorbing abnormal smells and/or tastes, in particular through the proximity of other products which give off volatile odours.

The development and condition of the persimmons must be such as to enable them:

- to withstand transportation and handling
- to arrive in satisfactory condition at the place of destination.

B. Maturity requirements

The persimmons must be sufficiently developed, and display satisfactory ripeness. The development and state of maturity of the persimmons must be such as to enable them to

continue their ripening process and to reach the degree of ripeness required in relation to the varietal characteristics.

Interpretation: Shape, size and surface colour **convey** information about the maturity level **of a specific variety.**

At least the lower 1/3 of the fruit should be yellow or the colour should be turning.

Interpretation: Once picked, persimmons continue to **mature, provided the fruit has reached the stage of maturity ensuring proper completion of the ripening process resulting in normal taste, flavour and odour.**

Examples related to the maturity requirement "satisfactory ripeness" are shown in Photos 30-33.

Photo 30. Maturity requirement: "satisfactory ripeness". Rojo Brillante: All fruits are sufficiently developed. Top left fruit (totally green) is not sufficiently mature. All other fruits are sufficiently mature. Middle top fruit (1/3 of the surface is yellow) is sufficiently mature for picking. Middle bottom fruit (orange) is ripe and ready for consumption as firm fruit provided the astringency has been removed, the right bottom one (red) is ripe and ready for consumption as soft fruit.

Photo 31. Maturity requirement: "satisfactory ripeness". Kaki Tipo: Maturity on the tree. All fruits are sufficiently developed. Top left fruit (totally green) is not sufficiently mature. All other fruits are sufficiently mature. Middle top fruit (turning yellow) is sufficiently mature for picking.

Photo 32. Maturity requirement: "satisfactory ripeness". Kaki Tipo: Maturity after CO_2 and Ethylene treatment. All fruits are sufficiently mature. Middle bottom fruit is ready for consumption as firm fruit, right bottom – as soft fruit.

Photo 33: Maturity requirement: "satisfactory ripeness". Soft pistil end on a firm-ripe fruit – not allowed.

C. Classification

Persimmons are classified in three classes, as defined below.

(i) "Extra" Class

Persimmons in this class must be of superior quality. They must be characteristic of the variety.

The flesh must be sound.

The calyx must be intact.

The persimmons must be free from defects, with the exception of very slight superficial defects, provided these do not affect the general appearance of the produce, the quality, the keeping quality and presentation in the package.

Interpretation: Changes in colouration as persimmons **mature are not** considered to be defects in colouring. "Extra" Class fruit in packages must be uniform in colouring.

A deep red colour on the pistil end of firm-ripe fruit is not a defect, provided it is firm.

Examples related to Class "Extra" are shown in Photos 34-37.

Photo 34. Classification: "Extra" Class. Rojo Brillante. Perfect fruit, typical shape, intact calyx attached

Photo 35. Classification: "Extra" Class. A very slight superficial defect – limit allowed

Photo 36: All Classes. "Defects in colouring". Turning colour is not a defect

Photo 37: All Classes. "Defects in colouring". If not soft, the deep red colour on the pistil end of a firm-ripe fruit is not a defect.

(ii) **Class I**

Persimmons in this class must be of good quality. They must be characteristic of the variety.

The flesh must be sound.

The following slight defects, however, may be allowed, provided these do not affect the general appearance of the produce, the quality, the keeping quality and presentation in the package:

- a slight defect in shape

Interpretation: Examples of Class I shape defects are shown in Photos 38-39.

Photo 38. Classification: "Class I, a slight defect in shape". Rojo Brillante: typical shape (left), a slight defect in shape (right) – limit allowed

Photo 39. Classification: „Class I, a slight defect in shape". Triumph: typical shape (left), a slight defect in shape (right) – limit allowed

- slight defects in colouring, **caused by the sun, not exceeding 1/8 of the total surface of the fruit**

Interpretation: Changes in colouration as persimmons **mature** are not considered colour defects. Colour defects caused by the sun **affecting the flesh are not allowed**.

Examples of Class I defects in colouring are shown in Photos 36, 40-41.

Photo 40. Classification: "Class I, slight defects in colouring". Slight defects in colouring, caused by the sun, affecting 1/8 of the surface of the fruit – limit allowed

Photo 41. Classification: "Class I, slight defects in colouring". Slight defects in colouring and spots, caused by the sun affecting 1/8 of the surface of the fruit – limit allowed

- slight skin defects not exceeding
- **the distance between the pistil end and the calyx in case of fine corky lines running down from the calyx area**
- **1/16 of the total surface of the fruit for other skin defects.**

Interpretation: Examples of Class I slight skin defects are shown in Photos 42-47.

Photo 42. Classification: "Class I, slight skin defects". Fine corky lines measuring in total the distance between the pistil end and the calyx of the fruit – limit allowed

Photo 43. Classification: "Class I, slight skin defects". Slight healed cracks – limit allowed

Photo 44. Classification: "Class I, slight skin defects". Rubbing affecting in total 1/16 of the surface of the fruit – limit allowed

Photo 45. Classification: "Class I, slight skin defects". Rubbing affecting in total 1/16 of the surface of the fruit – limit allowed

Photo 46. Classification: "Class I, slight skin defects". Slight damage caused by scales affecting the skin only – **[within the limit allowed]**

Photo 47. Classification: "Class I, slight skin defects". Slight damage caused by tortrix or **leafroller** moths (*Totricidae* **spp.**) affecting the skin only – **[within the limit allowed].**

- slight bruising not exceeding 2 cm^2 cumulative in area

Interpretation: An example of Class I slight bruising is shown in Photo 48.

Photo 48. Classification: "Class I, slight bruising". Slight bruising affecting a cumulative area of 2 cm^2 – limit allowed

- **slight damage to the calyx**

Interpretation: An example of Class I slight damage to the calyx is shown in Photo 49.

Photo 49. Classification: "Class I, slight damage to the calyx". Half of the **outer parts of the calyx** missing – limit allowed

- slight internal **discolouration** not exceeding 1/3 of the total cross-section of the fruit.

Interpretation: [Internal discolouration may be caused by rough handling after the astringency has been artificially removed.] The area affected by internal **discolouration** does not increase during marketing, but the **discolouration** may **darken**, which is not considered to increase the severity of the defect.

Examples of Class I internal browning of the flesh are shown in Photos 50-52.

Photo 50. Classification: "Class I, slight internal discolouration". Slight internal discolouration affecting 1/3 of the cross-section – limit allowed

Photo 51. Classification: "Class I, slight internal discolouration". Slight internal discolouration under the skin affecting 1/3 of the surface – limit allowed

Photo 52. Classification: "Class I, slight internal discolouration". Flesh darkening around the seeds is not a defect

(iii) **Class II**

This class includes persimmons that do not qualify for inclusion in the higher classes but satisfy the minimum requirements specified above:

Interpretation: Persimmons in this class must be of reasonable quality and suitable for human consumption.

The flesh must be free from major defects.

The following defects may be allowed, provided the persimmons retain their essential characteristics as regards the quality, the keeping quality and presentation:

- defects in shape

Interpretation: Examples of Class II shape defects are shown in Photos 53-56.

Photo 53. Classification: "Class II, defects in shape". Rojo Brillante: typical shape (left), defect in shape (right) – limit allowed

Photo 54. Classification: "Class II, defects in shape". Triumph: typical shape (left), defect in shape (right) – limit allowed.

Photo 55. Classification: "Class II, defects in shape". Rojo Brillante: serious defect in shape and double fruit – not allowed

Photo 56. Classification: "Class II, defects in shape". Triumph: serious defect in shape and double fruit – not allowed.

- defects in colouring, **caused by the sun, not exceeding 1/4 of the total surface of the fruit**

Interpretation: Changes in colouration as persimmons mature are not considered colour defects. Colour defects caused by the sun are allowed, provided the flesh is not severely affected.

Examples of Class II defects in colouring caused by the sun are shown in Photos 36, 57-58.

Photo 57. Classification: "Class II, defects in colouring caused by the sun". Defects in colouring caused by the sun affecting 1/4 of the surface of the fruit – limit allowed

Photo 58. Classification: "Class II, defects in colouring caused by the sun". Defects in colouring and spots, caused by the sun affecting 1/4 of the surface of the fruit – limit allowed.

- skin defects not exceeding
- **twice the** distance between the pistil end and the calyx **of the fruit for corky lines running down from the calyx area**
- **1/8 of the total surface of the fruit for other skin defects**

Interpretation: Examples of Class II skin defects are shown in Photos 59-68.

Photo 59. Classification: "Class II, skin defects". Corky lines measuring in total twice the distance between the pistil end and the calyx of the fruit – limit allowed

Photo 60. Classification: "Class II, skin defects". Corky lines measuring in total more than twice the distance between the pistil end and the calyx of the fruit – not allowed

Photo 61. Classification: "Class II, skin defects". Healed cracks – limit allowed

Photo 62. Classification: "Class II, skin defects". Serious healed cracks – not allowed

Photo 63. Classification: "Class II, skin defects". Skin defects caused by rubbing affecting 1/8 of the total surface of the fruit – limit allowed

Photo 64. Classification: "Class II, skin defects". Corkiness caused by humidity under the calyx – **[within** the **limit allowed]**

Photo 65. Classification: "Class II, skin defects". Damage caused by scales affecting the skin only – **[within** the **limit allowed]**

Photo 66. Classification: "Class II, skin defects". Cracked corkiness caused by **snout moths** (Cryptoblabes **spp.**) – **[within** the **limit allowed]**

Photo 67. Classification: "Class II, skin defects". Cracked corkiness caused by rubbing – not allowed

Photo 68. Classification: "Class II, skin defects". Cracked corkiness caused by rubbing – not allowed

- slight bruising not exceeding 3 cm^2 **cumulative** in area

Interpretation: An example of Class II bruising is shown in Photo 69.

Photo 69. Classification: "Class II, slight bruising not exceeding 3 cm^2 in area". Slight bruising, the flesh is free of major defects – limit allowed

- **damage to the calyx**

Interpretation: An example of Class II "damage to the calyx" is shown in Photo 70.

Photo 70. Classification: "Class II, damage to the calyx". **All outer parts of the calyx** missing – limit allowed

- slight internal **discolouration** not exceeding 1/2 of the total cross-section of the fruit.

Interpretation: [Internal **discolouration** may be caused by rough handling after the astringency has been artificially removed.] The area affected by internal **discolouration** does not increase during marketing, but the discolouration may **darken**, which is not considered to increase the severity of the defect.

Examples of Class II internal discolouration are shown in Photos 52 and 71.

Photo 71. Classification: "Class II, slight internal discolouration". Internal discolouration affecting 1/2 of the total cross-section of the fruit – limit allowed

III. Provisions concerning sizing

Size is determined by the maximum diameter of the equatorial section, by the weight of the fruit or by count of fruit per package.

The minimum size shall be:

(a) For persimmons sized by diameter: **40 mm**

(b) For persimmons sized by weight: 50 grams

(c) For persimmons sized by count: 40 mm or 50 grams.

To ensure uniformity in size, the range in size between produce in the same package shall **be:**

(a) For persimmons sized by diameter**: not exceeding 20 mm**

(b) For persimmons sized by weight: in accordance with the table below:

Size code	*Weight in grams*	*Maximum permissible difference between fruit within the package in grams*
A	50 - 90	20
B	85-130	25
C	125-190	35
D	>180	50

(c) For persimmons sized by count: **consistent with point (a).**

Uniformity in size is compulsory for Classes "Extra" and I.

Interpretation: An example of sizing is shown in Photo 72.

Photo 72. Sizing. Checking the size by using a sizing ring.

IV. Provisions concerning tolerances

At all marketing stages, tolerances in respect of quality and size shall be allowed in each lot for produce not satisfying the requirements of the class indicated.

Interpretation: Tolerances are provided to allow for deviation in handling and for natural deterioration of fresh produce over time.

Conformity with tolerances should be determined using at least the OPERATING RULES FOR THE CONFORMITY CHECKS as set out in Annex II to the Council Decision Revising the OECD „SCHEME FOR THE APPLICATION OF INTERNATIONAL STANDARDS FOR FRUIT AND VEGETABLES" [C(2006)95][1].[Insert footnote to the source]

A. Quality tolerances

(i) "Extra" Class

A total tolerance of 5 per cent, by number or weight, of persimmons not satisfying the requirements of the class but meeting those of Class I is allowed. Within this tolerance not more than 0.5 per cent in total may consist of produce satisfying the requirements of Class II quality.

Interpretation: The 5 per cent tolerance covers all shape, skin and colour defects allowed in Class I. The 0.5 per cent tolerance covers all shape, skin and colour defects, as well as bruises allowed in Class II.

(ii) Class I

A total tolerance of 10 per cent, by number or weight, of persimmons not satisfying the requirements of the class but meeting those of Class II is allowed. Within this tolerance not more than 1 per cent in total may consist of produce satisfying neither the requirements of Class II quality nor the minimum requirements, or of produce affected by decay.

Interpretation: The 10 per cent tolerance covers all shape, skin and colour defects, as well as bruising allowed in Class II. The 1 per cent tolerance covers all defects not meeting the minimum requirements including those rendering the produce unfit for consumption.

(iii) Class II

A total tolerance of 10 per cent, by number or weight, of persimmons satisfying neither the requirements of the class nor the minimum requirements is allowed. Within this tolerance not more than 2 per cent in total may consist of produce affected by decay.

Interpretation: The 10 per cent tolerance covers all malformations, serious skin and colour defects as well as defects not meeting the minimum requirements but not affecting edibility such as slight damage, soiling, lack of freshness. The 2 per cent tolerance covers all defects not meeting the minimum requirements rendering the produce unfit for consumption.

B. Size tolerances

For all classes (if sized): A total tolerance of 10 per cent, by number or weight, of persimmons not satisfying the requirements as regards sizing is allowed.

Interpretation: The size tolerances are granted for produce below or above a set minimum as well as for produce deviating from the allowed and/or indicated size range.

[1] www.oecd.org/dataoecd/33/0/19517729.PDF

V. Provisions concerning presentation

A. Uniformity

The contents of each package must be uniform and contain only persimmons of the same origin, variety, quality and size (if sized).

For the "Extra" Class, the uniformity requirement also applies to colouring.

Interpretation: Examples of uniform presentation are shown in Photos 73-77.

Photo 73. Presentation: "Uniformity". "Extra" Class (Rojo Brillante) in a single-layer tray

Photo 74. Presentation: "Uniformity". Classes I and II – no uniformity in colouring required

Photo 75. Presentation: "Uniformity". Class I (Rojo Brillante) in a single-layer tray

Photo 76. Presentation: "Uniformity". Class I (Kaki Tipo) in sales packages in a package

Photo 77. Presentation: "Uniformity". Class II (Rojo Brillante) in a single-layer tray

The visible part of the contents of the package must be representative of the entire contents.

Interpretation: Presentation should not be misleading, i.e. concealing in the lower layers of the package produce inferior in quality and size (if sized) to that displayed and marked.

B. Packaging

The persimmons must be packed in such a way as to protect the produce properly.

Interpretation: Packages must be of such quality and strength as to protect the persimmons during transportation and handling.

Examples of packaging are shown in Photos 78-81.

Photo 78. Presentation: "Packaging". Single-layer package covered with a film

Photo 79. Presentation: "Packaging". Persimmons packed in sales packages

Photo 80. Presentation: "Packaging". Sales packages in a package

Photo 81. Presentation: "Packaging". Stickers on the fruit allowed in all classes

The materials used inside the package must be clean and of a quality such as to avoid causing any external or internal damage to the produce. The use of materials, particularly of paper or stamps bearing trade specifications, is allowed, provided the printing or labelling has been done with non-toxic ink or glue.

Stickers individually affixed to the produce shall be such that, when removed, they neither leave visible traces of glue nor lead to skin defects.

Packages must be free of all foreign matter.

Interpretation: Clean materials should be used to protect the produce from foreign matter, such as leaves, sand or soil, which could cause a negative impact on the produce and its presentation. A visible lack of cleanliness in several packages **is not allowed**.

VI. Provisions concerning marking

Each package[2] must bear the following particulars, in letters grouped on the same side, legibly and indelibly marked, and visible from the outside.

Interpretation: In the case of packed produce, all particulars must be grouped on the same side of the package, either on a label attached to or printed on the package with water-insoluble ink.

In the case of re-used packages, all previous labels must be carefully removed and/or previous indications deleted.

Although these marking provisions do not apply to sales packages presented in packages, the indications given on both package and sales packages should not be misleading – if sales packages are marked or labelled.

Examples of marking are shown in Photos 82-83.

Photo 82. Marking printed on a label

Photo 83. Marking printed on a package

A. Identification

Packer and/or dispatcher/shipper:

Name and physical address (e.g. street/city/region/postal code and, if different from the country of origin, the country) or a code mark officially recognized by the national authority[3].

Interpretation: For inspection purposes, the "packer" is the person or firm responsible for the packaging of the produce (this does not mean the staff that actually carry out the work, who are responsible only to their employer). The code mark is not a trademark but an official control system enabling the person or firm responsible for packaging to be readily identified. The dispatcher (shipper or exporter) may, however, assume sole responsibility, in which case identification of the "packer" as defined above is optional.

B. Nature of produce

- "Persimmons" if the contents are not visible from the outside.
- Name of the variety.

  The name of the variety can be replaced by a synonym. A trade name[4] can only be given in addition to the variety or the synonym.

---

[2] These marking provisions do not apply to sales packages presented in packages.

[3] The national legislation of a number of countries requires the explicit declaration of the name and address. However, in the case where a code mark is used, the reference „packer and/or dispatcher (or equivalent abbreviations)" has to be indicated in close connection with the code mark, and the code mark should be preceded by the ISO 3166 (alpha) country/area code of the recognizing country, if not the country of origin.

[4] A trade name can be a trade mark for which protection has been sought or obtained or any other commercial denomination.

Interpretation: The following examples are given to explain the indications related to variety, synonym and trade name:

- "Kaki Tipo" is the name of the variety which can be replaced by its synonym "Loto di Romagna"
- **"Sharon" or "Sharoni" are trade names which must be accompanied by the variety name "Triumph"**
- **"peRsimon®" is a registered trade mark for the variety "Rojo Brillante" which must be accompanied by the variety name "Rojo Brillante".**

C. Origin of produce

- Country of origin[5] and, optionally, district where grown, or national, regional or local place name.

Interpretation: Marking must include the country of origin, i.e. the country in which the persimmons were grown (e.g. "Produce of Spain", "Produce of Tajikistan" **or "Produce of Italy**").

The full or commonly used name should be indicated. The full name would be, e.g. "Kingdom of the Netherlands" or "Federal Republic of Germany". The common name would be "The Netherlands" or "Germany". In case of "The Netherlands" it would be allowed to indicate "Holland" if this name of a province is commonly used for the "Netherlands". Acronyms are not allowed with the exception of USA for the United States of America. Moreover, it is not allowed to indicate "French strawberries" to replace "origin: France".

Optionally, district of origin in national, regional ~~**(e.g. Ribera del Xuquer)**~~ or local terms may also be shown.

D. Commercial specifications

- Class.

Interpretation: Stating the class is compulsory.

- Size (if sized) expressed as:
  - Minimum and maximum diameters or
  - Minimum and maximum weights or
  - Number of units.
  - **"Ready for consumption when firm" or equivalent denomination, where appropriate.**

[5] The full or a commonly used name should be indicated.

E. Official control mark (optional)

Adopted 20xx

Annex 1

Summary of classification:

Examples of Classification of different defects are shown in Slides 97-63.

Slide 97: Classification of defects in shape. Variety: Rojo Brillante. Left to right: typical, limit Class I, limit Class II, out of grade.

Slide 98: Classification of defects in shape. Variety: Triumph. Left to right: typical, limit Class I, limit Class II, out of grade.

Slide 99: Classification of defects in colouring. Left to right: limit Class I, limit Class II, out of grade.

Slide 100: Classification of skin defects (fine corky lines). Left to right: limit "Extra" Class, limit Class I, limit Class II, out of grade.

Slide 101: Classification of skin defects (cracks in Kaki Tipo). Left to right: limit "Extra" Class, limit Class I, limit Class II, out of grade.

Slide 102: Classification of skin defects (rubbing). Left to right: limit "Extra" Class, limit Class I, limit Class II, out of grade.

Slide 103: Classification of bruising. Left to right: limit Class I, limit Class II, out of grade.

Slide 104: Classification of internal browning. Left to right: limit Class I, limit Class II, out of grade.

Annex 2

UNECE Standard FFV-63 concerning the marketing and commercial quality control of persimmons

I. Definition of produce

This standard applies to persimmons of varieties (cultivars) grown from *Diospyros kaki* L. **f.** to be supplied fresh to the consumer, persimmons for industrial processing being excluded.

II. Provisions concerning quality

The purpose of the standard is to define the quality requirements for persimmons at the export-control stage after preparation and packaging.

However, if applied at stages following export, products may show in relation to the requirements of the standard:

- A slight lack of freshness and turgidity
- For products graded in classes other than the „Extra" Class, a slight deterioration due to their development and their tendency to perish.

The holder/seller of products may not display such products or offer them for sale, or deliver or market them in any manner other than in conformity with this standard. The holder/seller shall be responsible for observing such conformity.

A. Minimum requirements

In all classes, subject to the special provisions for each class and the tolerances allowed, the persimmons must be:

- Intact, with the calyx attached, **which may be with or without peduncle and dry and brown**
- Sound; produce affected by rotting or deterioration, such as to make it unfit for consumption, is excluded
- Clean, practically free of any visible foreign matter
- Practically free from pests
- Free from damage caused by pests affecting the flesh
- Free of abnormal external moisture
- Free of any foreign smell and/or taste.

The development and condition of the persimmons must be such as to enable them:

- To withstand transportation and handling
- To arrive in satisfactory condition at the place of destination.

B. Maturity requirements

The persimmons must be sufficiently developed, and display satisfactory ripeness. The development and state of maturity of the persimmons must be such as to enable them to continue their ripening process and to reach the degree of ripeness required in relation to the varietal characteristics.

At least the lower 1/3 of the fruit should be yellow or the colour of the fruit should be turning.

C. Classification

Persimmons are classified in three classes, as defined below:

(i) ***„Extra" Class***

Persimmons in this class must be of superior quality. They must be characteristic of the variety.

The flesh must be sound.

The calyx must be intact.

The persimmons must be free from defects, with the exception of very slight superficial defects, provided these do not affect the general appearance of the produce, the quality, the keeping quality and presentation in the package.

(ii) ***Class I***

Persimmons in this class must be of good quality. They must be characteristic of the variety.

The flesh must be sound.

The following slight defects, however, may be allowed, provided these do not affect the general appearance of the produce, the quality, the keeping quality and presentation in the package:

- A slight defect in shape
- Slight defects in colouring, caused by the **sun, not exceeding 1/8 of the total surface of the fruit**
- Slight skin defects not exceeding
  - **the distance between the pistil end and the calyx in case of fine corky lines running down from the calyx area**
  - **1/16 of the total surface of the fruit for other skin defects**
- **Slight damage to the calyx**
- Slight bruising not exceeding 2 cm^2 **cumulative** in area
- Slight internal **discolouration** not exceeding 1/3 of the total cross-section area of the fruit.

(iii) ***Class II***

This class includes persimmons that do not qualify for inclusion in the higher classes but satisfy the minimum requirements specified above.

The flesh must be free from major defects.

The following defects may be allowed, provided the persimmons retain their essential characteristics as regards the quality, the keeping quality and presentation:

- Defects in shape
- Defects in colouring, caused by the **sun not exceeding 1/4 of the total surface of the fruit**
- Skin defects not exceeding
  - **twice the distance between the pistil end and the calyx for corky lines running down from the calyx area**
  - **1/8 of the total surface of the fruit for other skin defects**
- Slight bruising not exceeding 3 cm^2 **cumulative** in area
- **Damage to the calyx**
- Slight internal **discolouration** not exceeding **1/2** of the total cross-section area of the fruit.
- ~~**[A slight lack of turgidity.]**~~

III. Provisions concerning sizing

Size is determined by the maximum diameter of the equatorial section, by the weight of the fruit or by count of fruit per package.

The minimum size **shall be**

(a) For persimmons sized by diameter: 40 mm

(b) For persimmons sized by weight: 50 grams

(c) For persimmons sized by count: 40 mm or 50 grams.

To ensure uniformity in size, the range in size between produce in the same package shall **be:**

(a) For persimmon sized by diameter: **not exceeding 20 mm**

(b) For persimmons sized by weight: in accordance with the table below:

Size code	Weight in grams	Maximum permissible difference between fruit within the package in grams
A	50 - 90	20
B	85-130	25
C	125-190	35
D	>180	50

(c) For persimmon sized by count: **consistent with point (a).**

Uniformity in size is compulsory for **Classes** „Extra" and I.

IV. Provisions concerning tolerances

At all marketing stages, tolerances in respect of quality and size shall be allowed in each lot for produce not satisfying the requirements of the class indicated.

A. Quality tolerances

(i) „Extra" Class

A total tolerance of 5 per cent, by number or weight, of persimmons not satisfying the requirements of the class but meeting those of Class I is allowed. Within this tolerance not more than 0.5 per cent in total may consist of produce satisfying the requirements of Class II quality.

(ii) Class I

A total tolerance of 10 per cent, by number or weight, of persimmons not satisfying the requirements of the class but meeting those of Class II is allowed. Within this tolerance not more than 1 per cent in total may consist of produce satisfying neither the requirements of Class II quality nor the minimum requirements, or of produce affected by decay.

(iii) Class II

A total tolerance of 10 per cent, by number or weight, of persimmons satisfying neither the requirements of the class nor the minimum requirements is allowed. Within this tolerance not more than 2 per cent in total may consist of produce affected by decay.

B. Size tolerances

For all classes (if sized): a total tolerance of 10 per cent, by number or weight, of persimmons not satisfying the requirements as regards sizing is allowed.

V. Provisions concerning presentation

A. Uniformity

The contents of each package must be uniform and contain only persimmons, with or without crowns, of the same origin, variety, quality and size (if sized).

For the „Extra" Class, the uniformity requirement also applies to colouring.

The visible part of the contents of the package must be representative of the entire contents.

B. Packaging

The persimmons must be packed in such a way as to protect the produce properly.

The materials used inside the package must be clean and of a quality such as to avoid causing any external or internal damage to the produce. The use of materials, particularly of paper or stamps bearing trade specifications, is allowed, provided the printing or labelling has been done with non-toxic ink or glue.

Stickers individually affixed to the produce shall be such that, when removed, they neither leave visible traces of glue nor lead to skin defects.

Packages must be free of all foreign matter.

VI. Provisions concerning marking

Each package[6] must bear the following particulars, in letters grouped on the same side, legibly and indelibly marked, and visible from the outside.

A. Identification

Packer and/or dispatcher/shipper:

Name and physical address (e.g. street/city/region/postal code and, if different from the country of origin, the country) or a code mark officially recognized by the national authority[7].

B. Nature of produce

- „Persimmons" if the contents are not visible from the outside
- Name of the variety

  The name of the variety can be replaced by a synonym. A trade name8 can only be given in addition to the variety or the synonym.

C. Origin of produce

- Country of origin[9] and, optionally, district where grown, or national, regional or local place name.

D. Commercial specifications

- Class
- Size (if sized) expressed as:
  - Minimum and maximum diameters or
  - Minimum and maximum weights or
  - Number of units

---

[6] These marking provisions do not apply to sales packages presented in packages.

[7] The national legislation of a number of countries requires the explicit declaration of the name and address. However, in the case where a code mark is used, the reference „packer and/or dispatcher (or equivalent abbreviations)" has to be indicated in close connection with the code mark, and the code mark should be preceded by the ISO 3166 (alpha) country/area code of the recognizing country, if not the country of origin.

[8] A trade name can be a trademark for which protection has been sought or obtained or any other commercial denomination.

[9] The full or a commonly used name should be indicated.

- **"Ready for consumption when firm" or equivalent denomination, where appropriate.**

E. Official control mark (optional)

Adopted 20xx